

Claims

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21. (Presently Amended) A method implemented as a computer program for forming a route from an object route as an input and coordinating a first workflow directed by the object route with a second workflow directed by the route and separate from the first workflow, the method comprising:

providing a first object step with an associated first route segment, a sequence of steps to be connected to other route segments;

providing a second object step with an associated second route segment, a sequence of steps to be connected to other route segments;

providing a first workflow means directed by an object route, a sequence of object steps, with means to signal a second workflow means to start a route;

providing the second workflow means that is separate, independent, and operating asynchronous from the first workflow means, directed by a route, a sequence of steps, with means to signal the first workflow means the completion of a route;

defining a first object route, a sequence of object steps, including the first object step and second object step, providing conditional branches, parallel paths, and loops such that all connected object steps are included;

the method further providing:

forming a first route from the first object route by connecting the route segments associated with each object step, including the first route segment and second route segment, in the sequence of the object steps of the first object route where the first route is separate and not connected to the first object route;

providing the first object route to direct the first workflow means;

providing the first route to direct the second workflow means;

starting the first workflow to execute the first object route, which signals the second workflow to start the first route; and, the second workflow completes the first route and signals the first workflow to complete the first object route.

22. (Presently Amended) The method of Claim 21 wherein a third object step with an associated third route segment follows the second object step in the sequence of object steps of the first object route and the third route segment provides a feedback ~~connection-link~~ to the second route segment in forming the first route where the feedback ~~connection-link~~ is not in the object route.

23. (Previously Amended) The method of Claim 21 wherein the first object step with an associated fourth route segment as an alternative route segment such that either the first route segment or the fourth route segment is selected when forming the first route.

24. (Previously Amended) The method of Claim 21 wherein the route segments are connected in the sequence of the object route steps with connections not in the connections of the object route steps of object route.

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26. (Previously Amended) The method of Claim 21 wherein the first route segment signals the first object step the number of identifiers, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment.

27. (Previously Amended) The method of Claim 21 wherein the first route segment signals the first object step the net number of identifiers, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment by subtracting the number of identifiers read on a feedback path from the number of identifiers read.

28. (Previously Amended) The method of Claim 21 wherein the first route segment signals the first object step the identifier, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment.

29. (Presently Amended) A method implemented as a computer program for generating a detailed route to direct a detailed workflow to implement a process at a detailed level from the input of an abstraction route defined to direct an abstraction workflow to implement the process at an abstraction level, the method comprising:

providing a first object step that implements an abstraction level process step with an associated first route segment that implements process steps at a detailed level, the sequence of steps to be connected to other route segments;

providing a second object step that implements an abstraction level process step with an associated second route segment that implements process steps at a detailed level, the sequence of steps to be connected to other route segments;

providing a detailed workflow directed by a detailed route;

providing a abstraction workflow directed by an abstract route, where the abstraction workflow is separate, independent, and asynchronous from the detailed workflow;

defining a first abstraction route, a sequence of object steps including the first object step and second object step, providing conditional branches, parallel paths, and loops such that all connected object steps are included to direct an abstraction workflow to implement the abstraction level of the process;

the method further providing:

generating a first detailed route from the first abstraction route by connecting the route segments, including the first route segment and second route segment, associated with each object step in the sequence of the object steps of the first abstraction route where the connection of the route steps are separate from the object steps

providing the first detailed route to direct the detailed workflow to implement the detailed level of the process, and

providing the first abstraction route to direct the abstraction workflow to implement the abstract level of the process.

30. (Presently Amended) The method of Claim 29 wherein a third object step with an associated third route segment follows the second object step in the sequence of the object steps of the first abstraction route and the third route segment provides a feedback ~~connection-link~~ to the second route segment in forming the first detailed route where the feedback ~~connection-link~~ is not in the first abstraction route.

31. (Previously Amended) The method of Claim 29 wherein the first object step with an associated fourth route segment as an alternative route segment such that either the first route segment or the fourth route segment is selected when forming the first detailed route.

32. (Previously Amended) A system using an object step for generating a route from an object route for an abstraction level workflow directed by the object route and an independent, separate, asynchronous detailed level workflow directed by the route, the system comprising:

a first computer system connected to a network and executing an abstraction level workflow program directed by an object route, a sequence of object steps;

the second computer system connected to the network and executing an independent, separate, asynchronous detailed level workflow program directed by a route, a sequence of steps;

a first object step with an associated first route segment, a sequence of steps to be connected to other route segments;

a second object step with an associated second route segment, a sequence of steps to be connected to other route segments;

a first object route, a sequence of object steps, including the first object step and second object step, providing conditional branches, parallel paths, and loops such that all connected object steps are included,

a third computer system connected to the network and executing a conversion program to create a route from an object route by connecting the route segments associated with each object step in the sequence of the object steps in the object route where these connections are independent and separate from the connections of the object route including connections among the steps of the route segments that are not in the connections of the object route;

the third computer system and conversion program are provided the first object route and the conversion program creates a first route including the first route segment and second route segment;

the third computer provides the first object route to the first computer such that the abstraction level workflow program is directed by the first object route;

the third computer provides the first route to the second computer such that the independent detailed level workflow program is directed by the first route;

such that the first object route begins directing the abstract level workflow and the first route begins directing the independent, separate, asynchronous detailed level workflow; and, the first route completes and the first object route completes.

33. (Presently Amended) The system of Claim 32 wherein a third object step with an associated third route segment follows the second object step in the sequence of the object steps of the first object route and the third route segment provides a feedback ~~connection link~~ to the second route segment where the object route does not provide a feedback ~~connection link~~.

34. (Previously Amended) The system of Claim 32 wherein the first object step with an associated fourth route segment as an alternative route segment such that either the first route segment or the fourth route segment is selected when forming the first route.

35. (Previously Amended) The system of Claim 32 wherein the first route segment signals the first object step when the first route segment begins directing the detailed level workflow.

36. (Previously Amended) The system of Claim 32 wherein the first route segment signals the first object step when the first route segment completes directing the detailed level workflow.

37. (Previously Amended) The system of Claim 32 wherein the first route segment signals the first object step the number of identifiers, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment.

38. (Previously Amended) The system of Claim 32 wherein the first route segment signals the first object step the net number of identifiers, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment by subtracting the number of identifiers read on a feedback path from the number of identifiers read.

39. (Previously Amended) The system of Claim 32 wherein the first route segment signals the first object step the identifier, including barcode and Radio Frequency Identifier (RFID), read by a step in the first route segment.

40. (Original) The method of Claim 29 wherein the route steps are connected in the sequence of the object steps where the connections include connections between steps of the route that are not in the connections of the object steps.